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| 10/565,014 | 01/18/2006 | Gerald Hobisch | 11885-00075-US | 5437 |

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| EXAMINER | |
|---|---|
| DOLLINGER, MICHAEL M | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/565,014 | HOBISCH ET AL. | |
| | Examiner | Art Unit | |
| | MIKE DOLLINGER | 1796 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *10 June 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,4 and 6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4 and 6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Objections*

1. Claim 1 is objected to because of the following informalities: in line 30 there is an extra period after "the monomer mixture of A1 and A2". Appropriate correction is required.

2. Claim 1 is objected to because of the following informalities: in line 32 "alcoholshaving" should be "alcohols having". Appropriate correction is required.

3. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 4 limits the mass fraction of the monomers A1 in the mixture of monomers A1 and A2 to 10% to 33% but claim 1 already limits the mass fraction of monomers A2 in the monomer mixture A1 and A2 to 67% to 90%.

### *Claim Objections*

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staritzbichler et al (EP 0 272 524) in view of Tuemmler et al (US 6,114,434).

5. Staritzbichler discloses water dilutable lacquer bonding agents based on the partial condensation products of a water soluble polycarboxylic acid binder and a water insoluble polyhydroxyl component [paragraph 4] and the binder is made water dilutable by partial neutralization of carboxyl groups [paragraph 5]. The binder comprises (A) 10 to 90 weight percent of the polycarboxylic acid binder [paragraph 6] with an acid value of 50 to 280 mg KOH/g [paragraph 8] and (B) 10 to 90 weight percent of the polyhydroxyl binder [paragraph 6] with hydroxyl number between 50 and 300 mg KOH/g [paragraph 10]. The polyhydroxyl binder is prepared from the polycondensation of polyols, polycarboxylic acids or their anhydrides, and monocarboxylic acids with 5 to 20 carbon atoms [paragraph 11] which read on the claims aliphatic monobasic fatty acids. The partial condensation product of A and B has an acid value up to 20 units lower than the polycarboxylic binder A [paragraph 19] which corresponds to an acid value of 30 to 260 mg KOH/g. The inventive example includes a pigment past from 127.3 parts by weight of 33% solids content binder AB, 27 parts by weight deionized water, 60 parts by weight of titanium dioxide (a white pigment), 60 parts by weight of barium sulfate (a white pigment) and 0.2 parts by weight of flaming soot (carbon black, a black pigment) [paragraph 30] which corresponds to 15 parts by weight of dry (solids content) binder resin and 44 parts by weight of inorganic pigment per 100 parts by weight of pigment concentrate. Twenty percent of the binder before dilution with water is methoxypropoxypropanol [paragraphs 25 and 27] which corresponds to 3 parts by

weight of methoxypropoxypropanol solvent per 100 parts by weight of pigment concentrate. Examiner has also calculated the molecular weight of the (B) polyester from the hydroxyl number and assuming a functionality of 1 (which is reasonable considering the monocarboxylic acid terminators) and found that the molecular weight ranges to as low as 1122 g/mol. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990), *In re Geisler*, 116 F.3d 1465, 1469-71, 43 USPQ2d 1362, 1365-66 (Fed. Cir. 1997).

6. Staritzbichler does not disclose the specific component A of the claims. However, Staritzbichler does disclose that the partial condensation product binder of A and B may also include formaldehyde condensates of melamine, urea, benzoguanamin, etc. [paragraph 16].

7. Tuemmler discloses water dilutable resins AB which are dilutable in water after neutralization and are the reaction products of A acid functional polymers and B water insoluble aldehyde or ketone resins obtainable by condensing aldehydes with urea [abstract]. The preferred embodiment of the polymer A comprises a copolymer formed from a monomer mixture comprising mass fractions of A1 from 10 to 33% of one or more monomers selected from the group consisting of an alpha,beta-unsaturated aliphatic carboxylic acid having 3 to 13 carbon atoms, and a monoalkyl ester of an alpha,beta-unsaturated aliphatic dicarboxylic acid having 1 to 20 carbon atoms in the alkyl radical, A2 from 67 to 90% of one or more olefinically unsaturated monomers

which are free of acid groups, selected from the group consisting of esters of acrylic and methacrylic acid with aliphatic alcohols having 1 to 12 carbon atoms in the alkyl radical, styrene, vinyl toluene, acrylonitrile, methacrylonitrile, hydroxyalkyl (meth)acrylates having 2 to 20 carbon atoms in the alkyl radical, and dialkyl esters of alpha,beta-unsaturated aliphatic dicarboxylic acids having 1 to 20 carbon atoms in the alkyl radical, and A3 from 0 to 50% of one or more mono- or polyunsaturated fatty acids having 14 to 30 carbon atoms, or their esters, the sum of the mass fractions of A1, A2, and A3 in the monomer mixture being 100% [col 3 line 53 through col 4 line7]. The invention is especially suitable as paste resins for preparing low-solvent and solvent-free pigment pastes. They feature a high pigment binding capacity, are stable on storage, and undergo little or no change in viscosity in the course of their storage in the pigment pastes produced from them. The amount of pigment that can be incorporated into these resins ranges from about 30 g to about 750 g of pigment per 100 g of resin AB, more typical from about 40 to about 600 g of pigment, and usually from about 50 to about 500 g of pigment [col 6 lines 9-21]. Before addition of pigments, minor amounts, i. e. between 0.5 and 10 g, of additives are usually added to the resin AB. These additives include, *inter alia*, wetting agents [col 6 lines21-24].

8. It would have been obvious to one having ordinary skill in the art the time the invention was made to have prepared a pigment concentrate comprising 40 to 70 weight percent inorganic pigment and 5 to 20 weight percent water dilutable condensation resin AB prepared by condensing a polycarboxylic acid polymer A from monomers A1, A2 and optionally A3 and hydrophobic polyester B comprising hydroxyl

groups because Staritzbichler teaches that it is within the skill of the art to a pigment concentrate comprising about 44 weight percent inorganic pigment and about 15 weight percent water dilutable condensation resin AB prepared by condensing a polycarboxylic acid polymer A and hydrophobic polyester B comprising hydroxyl groups and Tuemmler teach that it is within the skill of the art to prepare a pigment concentrate from a condensation resin AB prepared by condensing a polycarboxylic acid polymer A from monomers A1, A2 and optionally A3 and hydrophobic polymer B comprising hydroxyl groups. One would have been motivated to use the preferred polycarboxylic polymer A from Tuemmler as the polycvarboxylic acid polymer A of Staritzbichler because Tuemmler teaches that the polycarboxylic acid A features a high pigment binding capacity, is stable on storage, and undergoes little or no change in viscosity in the course of storage in the pigment pastes produced therefrom. Absent any evidence to the contrary, there would have been a reasonable expectation of success using the polycarboxylic acid A of Tuemmler to prepare the pigment concentrate of Staritzbichler.

***Response to Arguments***

9. Applicant's arguments, see pages 4-8, filed 06/10/2010, with respect to Dworak et al (US 2002/0077389 A1) have been fully considered and are persuasive. The rejection of 12/15/2009 has been withdrawn.

10. Applicant's arguments, see pages 4-8, filed 06/10/2010, with respect to Dworak et al (US 2002/0077389 A1) in view of Awad et al (US 4,996,250) have been fully considered and are persuasive. The rejection of 12/15/2009 has been withdrawn.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MIKE DOLLINGER whose telephone number is (571)270-5464. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/mmd/

/RANDY GULAKOWSKI/
Supervisory Patent Examiner, Art Unit 1796